

NORTH AND SOUTH DAKOTA HORTICULTURE

MARCH, 1939

South Dakota State
College Library



Mr. F. L. Skinner, Dropmore, Manitoba, Canada, among his beloved lilies.

634.05
77811.63



THE PINE SISKIN

by
By O. A. Stevens



O. A. Stevens

The siskin is another close relative of the goldfinch. It may be mentioned that the goldfinch and siskin of Europe are different birds from ours though they and the canary are closely related. Another European number of the group is the linnet, a species formerly much used as a cage bird. Alexander Wilson was the first to describe our pine siskin, calling it *Fringilla pinus*, the European siskin being *Fringilla spinus*. By division of *Fringilla* into smaller

groups, the birds are now known as *Spinus pinus* and *Spinus spinus*, respectively.

The siskin is a bird of the size of a goldfinch but dark greenish on the upper parts and prominently streaked both above and below with black. A yellow patch at the base of the tail and another in the middle of each wing are additional recognition features. Like the goldfinches and redpolls, they have very short legs and tails, low heads and short, sharp, conical bills.

The siskins occupy a sort of intermediate zone between the goldfinches and redpolls. Mostly they nest through central Canada, south through the mountains of northern United States. Last summer I noted them as some of common birds in Yellowstone Park. Mrs. Florence Merriam Bailey wrote of Glacier Park: "One of the notes most frequently heard in the higher parts of the park is the wild split note of the little siskin." At Fargo, I usually see them for a week or two during the middle of May when they feed upon the first dandelion seeds or upon tree buds and seeds. A few years ago, Russell Reid created something of a sensation by finding them nesting at Bismarck, North Dakota. They were also found nesting some years in western Iowa and eastern Nebraska where this phenomenon seemed to occur when there was a winter abundance of birds and the March temperature was fairly high, or if low in April and May. Like the other members of their group, they are erratic in the time and place of their appearance though I find them fairly regular in their usual migration. During winter they are found over the greater part of the United States and as far south as southern Florida and northern Mexico.

The siskins are much like the goldfinches in behavior and the call notes are similar, but of a more continuous buzzing nature. The birds are readily recognized by this sound which has al-

Volume XII.

March, 1939.

No. 3.

Entered as second class matter at the Post Office at Sioux Falls, South Dakota, under the act of August 24, 1912. Original Office of entry, Pierre, South Dakota.

Membership in the South Dakota State Horticultural Society is one dollar per year; fifty cents of this amount is for the subscription to "North and South Dakota Horticulture." The subscription rate for affiliated organizations is twenty-five cents per member, per year.

Published monthly at Sioux Falls, South Dakota, by the North and South Dakota State Horticultural Societies. Address all communications to W. A. Simmons, Secretary, Horticultural Office, Court House, Sioux Falls, So. Dak.

SOUTH DAKOTA OFFICERS

Dr. N. E. Hansen, President Emeritus	Brookings, S. D.
H. E. Beebe, President	Ipswich, S. D.
Geo. W. Gurney, Vice-President	Yankton, S. D.
W. A. Simmons, Secretary and Editor	Sioux Falls, S. D.
H. N. Dybvig, Treasurer	Colton, S. D.
Mrs. F. Briley, Librarian	Dell Rapids, S. D.

MEMBERS OF THE EXECUTIVE BOARD

E. A. Gates, five years	Rapid City, S. D.
F. X. Wallner, four years	Sioux Falls, S. D.
L. L. Davis, three years	Brookings, S. D.
S. H. Bober, two years	Newell, S. D.
J. B. Taylor, one year	Ipswich, S. D.

NORTH DAKOTA OFFICERS

Mrs. M. B. Kannowski, President	Grand Forks
Rev. J. R. McNeil, First Vice President	Carrington
E. C. Moran, Second Vice President	Medora
H. A. Graves, Secretary	Fargo
E. L. Shaw, Treasurer	Fargo

TABLE OF CONTENTS

	Page
The Pine Siskin, O. A. Stevens	26
Newsletters, H. A. Graves	27
Nature Department, H. L. Hopkins	28
President's Corner, H. E. Beebe	29
Fruit and Vegetable Notes, F. X. Wallner	30
Manitoba News Letter, W. R. Leslie	31
Secretary's Corner, W. A. Simmons	32
Book Review, Mrs. F. Briley	33
Lilies, F. L. Skinner	33
Books and Catalogs, W. E. H. Porter	34
S. D. Premium List	36

ways reminded me of that made by a certain variety of toy whistle containing a wheel which is rotated rapidly by blowing through it. The nests are usually built in evergreen trees. The eggs, like those of the redpoll, are pale blue with some brown markings.

The siskin is more strictly a forest bird than the redpoll and feeds largely upon seeds of birch, alder, and hemlock, less frequently upon seeds or buds of other trees and upon weed seeds. Plant

(Continued on page 29)



NEWSLANTS
by
Harry A. Graves



H. A. Graves

The Christmas season of 1938 has brought to our attention three instances of life in Christmas trees that has aroused considerable comment. A Minneapolis paper for February 5 carries the story of a family Christmas tree in Colorado that decided to send out new growth after two weeks in a bucket of moist gravel where it had been set to keep the needles from falling. A tree specialist of Colorado pronounced it as "one case in a million" and the tree

has been placed in a greenhouse to permit it to form new roots.

Should wood the age of the average butt cut on Christmas trees send out roots, I think it really would be something. Two residents of Fargo have had the same experience with their holiday trees this year. A recent phone call from one of the owners of these trees conveys the information that their tree, after a few weeks of apparent growth, finally gave up the struggle in spite of excellent care. We would not be surprised at growth of this kind from some rapid grower such as a cottonwood. This calls to mind an experience of 1937, while visiting the Missouri river bottoms near Bismarck. A long-time resident of the community pointed out a clump of cottonwoods and said they were what was once a cottonwood pole feed rack that Andrew Mellon and his brother had constructed for mules on their mule ranch. The green poles set in the moist bottom lands became over-grown cuttings and developed into trees in a hurry.

An irrigated garden in Foster County owned by O. R. Beckley of Bordulac is the object of some interesting comments in an article in a recent issue of Capper's Farmers. In a recent letter, Mr. Beckley tells us he has experimented with starting several vine crops under glass and has found that watermelons respond the best to this kind of culture, cucumbers next and muskmelons not so good.

The Tri-State Floral convention which is scheduled to be held in Bismarck next autumn has aroused interest in a few flowers not common here. A recent communication regarding orchids accompanied by a few bulblets sent me to some of my floriculture friends and some recent literature regarding this flower. We found some interesting information such as the fact that orchids are usually raised in a special greenhouse where both temperature and humidity are high.

Greenhouse men engaged in orchid culture are some of the most highly specialized floriculturists that we have. As far as I could learn they are not raised this side of the Twin Cities and there by only one concern. Fifteen thousand species of orchids are known to botanists. Part of these are terrestrial and part grow on the bark of trees. These latter sorts are not parasitic but take their food and moisture from the surrounding air and not from their host. Incidentally the February "Esquire" carries an interesting illustrated article by Harvey O'Connor under the title, "Last of the Orchid Hunters."

Ardale Wagner of Ray, North Dakota, one of the youngest and also one of the leading vegetable enthusiasts in our Society, writes of his experience with recently introduced varieties of cucumbers. He found the new Minnesota introduction, Mincu, early, good pickled, but a poor slicer. Straight 8, grown in comparison, was later but the best slicer he has ever raised.

While in Lisbon recently we had an interesting visit with Huether Brothers of Elliot, North Dakota. The Huethers have 24 acres planted to our old friend **Helianthus tuberosus**, more commonly known as Gerasole or Jerusalem Artichoke. In spite of the latter name, it is not an artichoke and has no relation to Jerusalem. This crop is not new but has been grown in North America longer than potatoes. Planted by the Experiment Station here over 30 years ago and again about 15 years ago, the tubers yielded were small and poorly shaped. It appears now that the only outlet for this crop is sale of the tubers for seed or hog feed. It has not as yet become an important source of either alcohol or sugar.

As a result (we hope) of our campaign to have a few of our North Dakota towns named for flowers, comes a letter from Rev. J. Ralph McNeil of Carrington saying that Carrington has been named "Iris Town," and that the Carrington Garden Club plans to sponsor sizeable plantings of this flower in their city this season. Rev. McNeil is one of the vice presidents of our So-

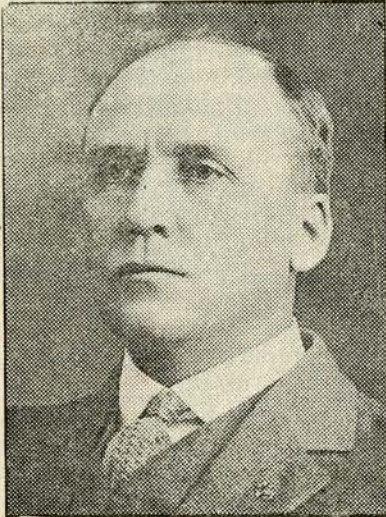
(Continued on page 30)

ALFALFA — SWEET CLOVER
Lawn Seed - Peat Moss - Bone Meal
Fertilizer
Bulk and Package Garden Seeds
Write for Prices
"Since 1915"
Gardner Bros. Feed Store
Sioux Falls, S. D.



HAS THE EARTH CHANGED ITS POLAR AXIS?

by
H. L. Hopkins



H. L. Hopkins

The earth is a spheroid, whirling at a terrific pace in open space, untrammelled by visible chains, belts or gears. A change of axis would profoundly alter its climate and above sea topography. Parts of its previously above sea surface would be submerged and parts from under sea would emerge.

There are many evidences that the earth has shifted its polar axis. Quite a few

strange and apparently unnatural things seemingly cannot be made to fit into their proper niches on any other theory. I will give a few examples.

Somewhere near the beginning of the current century a little party of scientists were prowling the dreary, frozen wastes of northern Siberia, well within the Arctic circle. They were out for information useful to mankind and to gratify personal urges, felt by all true scientists, to explore the unusual and dare the dangers of the hard and forbidding unknown. They were kindred in spirit with Marco Polo, Columbus, Livingston, Nansen, Peary, our own Hansen, Byrd and many others. The world has been much enriched by their urge and daring.

The dogs of this Siberian party refused their usual frozen fish food. Investigation disclosed that the dogs were feeding on a huge carcass of the long extinct mammoth. A small portion of it had been exposed by an ice slide. It had lain frozen in the ice for centuries and its flesh was well preserved. The mounted creature is now on exhibit in the British museum. The long extinct mammoth, like the elephant and rhinoceros, was a strictly tropical creature. Was northern Siberia a tropical region when that enormous animal was suddenly frozen? It seems highly improbable that it could have been carried there, preserved and intact, by devious water, as it would have been eagerly devoured by greedy denizens of the sea or sloughed away in putridity.

Just a little while ago fossilized pieces of the sequoia or giant red wood, the earth's largest conifer, were reliably reported as found on St. Lawrence Island, in north Bering Sea, well within the Arctic circle. These trees are native to temperate and semi-tropical zones.

Long dead coral beds have been found in several places within the Arctic circle. Living coral forms are found only in sea water and in semi-tropical and tropical zones. A large ancient coral bed has been found in Lake Michigan, near Chicago and another, of several thousand acres, is located in the Ohio valley, near Louisville. I have found several pieces of quite well preserved coral on the Dakota prairies, indubitably brought here from somewhere to the north by glacial ice.

Reputable scientists say that the great Sahara desert was once quite thickly populated, well watered and highly productive. There is also the legend, believed by many, of the low lying continent in the northern Atlantic, the "Lost Atlantis." It is presumed to have been well populated by humans and well developed for that age. It was the "antediluvian" dream of the "Sage of Nininger," the late brilliant Ignatius Donnelly and others. There was also the "great flood" of Bible history, when Noah is said to have navigated his Ark, that could have occurred neatly when Atlantis was submerged. They seem to fit into the same pattern and age in time.

Highly competent scientists have also found almost unmistakable evidences of ancient glaciation in Australia—now close to the equator.

That the greater part of the North American continent has anciently been under sea water is common knowledge among letter men. Unmistakable evidences of profound changes in average annual precipitation of moisture on many parts of the earth are found. This means drastic changes in zoning and topography.

How are these strange things to be accounted for? My reasoning tries to find absolutely natural causes based on the possible and probable and totally rejects every shred savoring of the miraculous and supernatural. That the earth has shifted suddenly, possibly several times, on its polar axis seems the most probable explanation. I can conceive of this being caused by a vast unbalancing weight, accumulating from the waters of the world, being held at one of the always frigid poles, in the form of ice. A huge ball rapidly turning in space automatically throws its heaviest part to its swiftest moving or equatorial orbit.

The whole tendency of nature seems to be to keep equalized and balanced through the operations of her steadily and evenly applied, unknown, unseen, mighty and deathless forces. What are

(Continued on page 36)



PRESIDENT'S CORNER

by
H. E. Beebe

Would New Members Be Happy? Yes!



H. E. Beebe

Our genial Secretary, Mr. Simmons, recently sent a list of magazines that could be combined with a membership in your Horticultural Society, at a very low cost.

It is about the time of the year when garden clubs will be considering raising money for spring work, and perhaps some beautification of some spot in the vicinity. A letter to W. A. right now will result in some very fine suggestions for replanishing the Garden Club

treasury, and also increasing the membership of the South Dakota State Horticultural Society.

When talking about new members one immediately thinks of W. E. H. Porter, of Hansboro, N. D., who has sent in six new members within the past two months, from North Dakota, England and North Ireland. How about the good Irish in the south part of Ireland?

S. B. Hartshorn of Stroner, Wyo., has renewed. I am sure he is a strong member. Hurlburt, the farmer and fruit grower living about five miles northeast of Caputa, has sent in his membership. It is very interesting to note that some of the best horticultural work is being done in the regions of small rainfall. This work is especially valuable, as its results can be used in more favorable sections.

I thank Claude Barr for interesting list of dry land plants raised in South Dakota, near Smithwick. This shows what can be done by studying what is at hand.

Now is the time to get out the garden tools, which inspires a quotation from the Minnesota Fruit Growers, "A grower over in Wisconsin said that he always called a spade a spade until he hit his foot with one the other day."

N. E. Hanson says, "I would like to plan ahead and propagate for Horticulture Society premiums as suggested in the presidential letter." I do not remember during the past three years and perhaps longer of the Horticultural Department at State College being mentioned very often in our State Horticultural Magazine, so evidently there is room for something to be done, that will help out our society, and I am sure all members will be glad to cooperate.

Mayor Hipple of Pierre, probably the most active and enthusiastic booster in central South Dakota, wrote a very fine article in his Capital Journal regarding the preservation of the timber

and replanting in gullies and other spots favored by nature. He also beguiled me with stories of the "Dolga" apple. The ideas of the readers on this variety being named as the South Dakota apple would be appreciated.

The Day County Commissioners include in their minutes of January 19, full instructions on how to plant trees to comply with the Tree Bounty law, and they add, "Nothing in this act shall interfere with planting a closer spacing than heretofore mentioned."

There seems to be tendency in these years of low moisture to allow trees to bush out near the ground. Perhaps we should have always made more of an effort to shade the soil in summer, catch the snow in winter, and stop the wind all the time.

Aberdeen boasts a special attraction to people who like trees, perhaps due to the efforts of Mrs. Tiffany. Mr. Anderson, the superintendent of their park board, stated at the state meeting in December, that the board upon application from any citizen would prune free of charge trees on the parking. Would not the looks of all our trees—yes, and the country side, improve 100% if the old dead limbs and trees were cut out this spring.

In the Walworth County Herald, Ernie Notebook of Selby writes that Brother Ford, the Paul Bunyan tree planter of South Dakota, will grab his spade this spring and put in about 8,000,000 trees.

This means 1,200 row miles and Ford, like a true believer in the Black Hills spruce as the South Dakota State tree, announces that a million of this planting will be evergreens.

When Bushfield was elected governor we did not expect we would need Christmas trees so quickly. This must be all part of some plan, and if Dybvig will cross these with the cotton plant, at his Colton Nursery in a few years the white wintry plains of South Dakota will be dotted with dark green patches of Christmas stocking trees.

Perhaps some reader would like to know what to plant that is liable to live in our Sunshine State. Here is the dope based on the 432 miles of 1938 shelter belts in South Dakota.

The average survival of all the trees was 69%. Wild plum did best—92% remaining alive. All lovers of birds will be glad that choke cherry comes next, with 86%. Green ash 84%, and my friend the Cottonwood, 77%. Next month you

(Continued on page 26)

THE PINE SISKIN

(Continued from page 26)

lice, olive-scales, and leaf-roller larvae were found among the insects eaten. In one instance the birds were reported as doing severe damage to young vegetable plants, and in another, to buds of fruit trees.

FRUIT AND VEGETABLE NOTES

by
F. X. Wallner



F. X. Wallner
Sioux Falls, S. D.

W. A. S., a young reporter on the Argus-Leader, wants to know how many grasshoppers will hatch in Minnehaha county this spring. When a small flower pot, containing one pound of soil, has hatched out about 100 in a warm room in the month of January, I would say they will be the worst ever and they will keep him and his dad, our editor, busy every day if they expect to grow any vegetables this summer. On page 66 of Jan. 16, Life, is the picture

of that tall basketball player Timmerman that worked in our gardens three or four summers, and he does not seem the least bit stoop shouldered. I always worried about the tall lad as he stooped over the wheel hoe or garden rake. He was a careful plant setter but in all his work, he seemed far from his work when he doubled over, to reach the ground. The open mash onion bag, holding 10 lbs., is a good container to move second grade onions, but it costs too much. Now comes the 30 lb. paper carton holding 24 to 40 big sweet Spanish onions that are plainly seen through the window. The carton must cost considerable, but with the bright colored lettering "Glorified Sweet Spanish Onions," will tempt many to take that package rather than a bag, or bulk out of a basket, even though these are cheaper. Rodney C. Hastings, associated with the N. D. Seed Department for the past 10 years, takes the place of E. M. Gillig, who passed away in December. Mr. Hastings is well known as a leader in the seed potato industry of the Red River Valley and particularly of N. Dak. Northern certified potato growers were especially invited on the potato tour in southern Florida January 16, to inspect new machinery, fertilizer and dusting tests. A demonstration of dusting was a main feature for all vegetable and fruit growers. Another feature was planting and landscaping a farmstead on the low "prairies" of Florida. The southern states have reduced the acreage planted to potatoes, tomatoes and onions several thousand acres. No doubt central and northern state will also reduce the plantings in these three commodities. Horticulture played an important part in "Free Land." The two brothers from Missouri and their four oxen lived all winter of 1879-1880 on a big patch of frozen turnips that they dug up out of the snow, as needed. On July 27, 1880, David sowed 15 acres, because his father had sent him plenty of seed. He sowed all night, by hand and that

fall he sent to Chicago five carloads of turnips that netted him 14 cents per bushel and had enough left to winter the oxen. They had to shoot murderers and horse thieves because the cottonwood trees were too far away. Mary promised David she would not allow the mustard and dandelions to go to seed if allowed to sow some for greens, but I guess she did. According to the latest figures there will be seven billion grasshoppers hatched in Minnehaha county this year if 100 hatch to a pound of soil. This allows for all buildings, pavements, roads, rivers, trees and rocks in the county, where there are no eggs. Pasque knoll is still our choice for a county or state park or preserve. I doubt if there is another tract of its size, containing as much of the state's natural trees, shrubs and wild flowers, but the Buffalo Berry has already disappeared and many of the best oaks are being cut. All friends of conservation of beauty spots and wild life choose this spot as outstanding for natural beauty. The Canadian Fruit and Vegetable association are asking protection from the "Loss Leader" selling. They also asked that the tariff be removed on fruits, especially oranges and bananas from December to July instead of December to April. Potatoes on hand January 1, 1939 are 11% larger than January 1, 1938; there are still a hundred million bushels on hand and new potatoes arriving from the south. There are on hand over three million sacks of onions, 8% more than last year, but 8% less than two years ago. More than 79 thousand tons of cabbages on hand, with new cabbage trying to find a market in the north. All states are overstocked with bulk carrots at \$9 to \$10 a ton, or 50 to 75 cents a 100 lb. bag, unwashed, but green tops selling for 5 to 10 cents per bunch. But the FSCC has shipped from Cali-

(Continued on page 34)

NEWSLANTS

(Continued from page 27)

ciety and president of the Carrington Club. With the revival of the name, "Gladiolus Town" in Bismarck and some steps being taken to have Grand Forks named "Peony Town" we sincerely hope that the idea of naming towns for flowers in North Dakota has only begun. Such a title lends interest in general municipal plantings of flowers chosen and also encourages home owners to plant and exhibit specimens of the sort selected at flower shows.

Ray Farrow of Cavalier reports a yield of 80 bushels of Blue Diamond popcorn from two acres the past season. People popping this corn claim for it excellent quality. We would be somewhat concerned over disposing of such a large quantity of this crop since much of it may have to be re-tailed direct to consumers who will not buy any great quantity.



MANITOBA NEWS LETTER

by
W. R. Leslie



W. R. Leslie

The Morden Station is fortunate in recently receiving donations of interesting fruit seeds from the U. S. S. R. These include seed gathered by plant hunters of that huge country.

In the collection are strains of Siberian crab from the Far East, Siberian apricot from the Far East, Manchurian apricot from Middle Asia, sour cherry from North Caucasus, and from Leningrad, and wild plum, supposedly one of the parents of the European dessert plum,

from the Caucasus, and from the North Caucasus mountains.

The Soviet Republic horticulturists have sent seed and scions for a number of years. Many things grown therefrom have come into fruiting. Among the contributions that mark new accomplishment for Manitoba gardens are their hardy mulberries. Earlier attempts at mulberry culture at Morden were disappointing. The strains from the dry steppes of Russia bear generous crops every year. Cherries and plums from the same origin have held up well during trying seasons on the Canadian prairies.

The latest argosy of seed from Asia, sent in exchange, was shipped by the renowned horticulturist and writer who sent the seed from which developed the two best apricots yet grown at Morden. He has organized a new experiment station at Harbin, Manchoukuo, and has sought Osman crab apple, McRobert plum, and the various fruits introduced at Morden.

His return shipment includes seeds of their best cultivated apricots, and a collection of Chinese melons. Among the scions and cuttings sent he lays great stress on the Chosenia (*Salix macrolepis*), stating it to be one of the tallest and quick growing trees of Manchurian forests. It is hoped that scions of the Manchurian Beauty plum become established here. It is classed as the best variety of *Prunus triflora*, or *Prunus salicina*, to be found in Northern Asia. Former shipments of Manchurian plum seeds have proven useful but to date no variety has shown up among them to challenge the McRobert, Tecumseh, La Crescent, or Mina.

In the vegetable garden arrangements may well be made to have perennial crops planted which will commence the season's harvest in April and early May. Welsh onions, chives, Sharpleaf spinach dock, and asparagus precede by some time the earliest radish, lettuce and spinach which can

be derived from sowing in the open garden this spring. Seakale is another vegetable that may be included among the garden perennials. The blanched tops develop early and make an appetizing vegetable dish. Rutabaga, or Swede turnips, which have been stored in the root cellar, may be planted out early to develop a supply of turnip greens. These are particularly rich in important minerals, such as calcium, iron, and phosphorus, as well as Vitamin A, and to less extent C, and the Riboflavin.

One of the first fruit bulletins printed in 1939 to be received at Morden came from a prominent horticulturist in Poland. The subject, Bridge-grafting and Invigorating Apple Trees, is written by Dr. Wladyslaw Filewicz. His work during the past twenty years has been in the Sinoleka orchard, somewhat over thirty miles from Warsaw. His accomplishments indicate a number of operations which may with advantage be generally adopted in prairie apple orchards.

Dr. Filewicz was confronted with disastrous frost injuries on tender apple trees. Partial freezing left wounds on the trunk and in the crotch. He worked toward bringing back the frost-bitten trees to healthy condition. His work was so successful that many trees recovered from their wounds and are now in good vigor and in heavy production.

The wounds were crossed with healthy wood by bridge-grafting and inarching. His numerous pointed illustrations picture different ingenious schemes of bridge-grafting. The common bridge-graft was used to overcome sunscald, wounds, mechanical wounds, crotch injuries, and to effect natural branch braces between scaffold main branches.

Inarching was by planting seedlings at the base of the tree and grafting the tops into the trunk and higher branches, also by grafting in the tops of suckers, of waterspouts, and of lower branches into the top-worked more tender upper portions of the tree. Such inarched parts are given the impressive term "healing shoots." In many instances they certainly had an invigorating influence upon the fruit bearing portion of the tree.

The tendency of grafted wounds was towards healing, but of neglected wounds towards enlarging and to the lowering of tree vigor.

Dr. Filewicz stresses hardy roots, trunks resistant to frost injury, and the value of double-worked trees. On the seedling root he grafts Antonovka and on most of the scaffold branches of Antonovka he grafts more tender, finer quality varieties. It is notable that he recommends allowing the trunk portion of the tree to retain at least one or two branches. He states, "These branches increase the resistance of the tender va-

(Continued on page 35)

SECRETARY'S CORNER

by
W. A. Simmons



W. A. Simmons

The upper western Plains states will be warm and moderately wet, with a dry area over northwest North Dakota. Prediction of Prof. Selby Maxwell for March in Capper's Farmer.

We learn with extreme regret of the passing of Dr. J. H. Sheppard, for many years president, and at the time of his passing, January 21, President Emeritus of the A. C. at Fargo. Dr. Sheppard was not only a very able man but a man with most lovable personal qualities. We last saw him at the meeting of the North Dakota Society in 1936, when he gave an informal talk on his recollection of the elder greats in the horticultural world, including Prof. Budd, under whom he studied at Ames. After the meeting we went to him and urged him to write this out for publication, as it was far too valuable to be lost. Dr. Sheppard graciously consented and his paper was published in the November and December issues of 1936, where it will be permanently preserved.

Mr. H. E. Dawes, of Brookings, writes: "I have just read Mr. Wallner's account of his troubles with electric razors and other electric clipping machines. While not, correctly speaking, related to Horticulture, I am interested in his experience. Reminds me of the story of the man who crossed sword grass with bluegrass and produced a hybrid grass which, when the wind blows, would cut the lawn; a self-cutting lawn grass."

Under date of February 12, Mr. Geo. Ramage, of Lysite, Wyo., whom I once had the pleasure of meeting and who reminded me very much of Mr. W. R. Leslie of Morden, about the highest compliment one could possibly pay to anyone, writes: "Was laid up with a heart attack last summer and I'm not over it yet. It's an enlarged heart I am suffering from, not a too serious heart trouble, still I haven't worked for over six months. Ten weeks ago I had to take to bed with what I thought was a bad cold, but the doctor told me I had a mild attack of pneumonia. It was nothing to the spasm I had when I was able to look at my orchard and see what the porcupines had done. I must have lost 20 trees, but mostly seedling plums. I lost a Compass cherry, entirely, also my La Crescent, Terry, 1 Sapa, and 1 Opata, barked right down to the ground. One Siberian with 10 grafts on it, nearly ruined. My Radisson plum was badly mauled but it seems I may have saved it by waxing! it was only partly circled. The seedling plums were all bearing and some of the

fruit was of excellent flavor. The porcupines seemed to choose my plum trees, for some reason, and I was rather glad of that. Still they are not a saucy animal as I see they worked an English willow over in good shape. Well, in three days I finished the job with a flashlight and a shotgun; got three of them. One was a whopper, about the biggest I ever saw. Got the big one in my Haralson apple tree, before he had got to work, but I see they had been up my Whitney, Hibernial and others without any real damage. Rabbits have been working on my berry bushes but it seems I have shot them all but one. I am feeding him alfalfa and will probably get him too, when he is off guard. I believe the drought has finally broken here; some say there is more snow on the mountain above my place than there has been for 20 years. That was a whale of a storm we had several days ago. I got caught out in it with the truck and had to dig out of drifts several times; 30 below zero, with a 40-mile wind. One herder had his face frozen and another one claims he got one foot frostbitten in the sheep camp bed. These things do happen as I have had my nose and ears bitten when I worked my head out from under the blankets during the night. In sheep wagons, during the winter, we usually burn coal, but it was another story 35 or more years ago, when all we had to burn was sage brush. Our magazine seems to be getting better all the time; Hopkins has put out some fine articles, but all the items are interesting and informative and it's a real pleasure to read them. When it comes in my mail, all other material is cast aside until I have got it read."

Mr. Ramage sent in the membership of a neighbor, thus earning an apricot tree. One member has already earned seven. Why don't you get in this game?

Tourist: You say the water in this village is unsafe to drink? What do you do with it?

Villager: Well sir, we boil it, then we filter it, then we put some chemical stuff in it, then we drink beer.—Tid-Bits.

N. O. MONSERUD

Landscape Architect Tree Surgeon

Office—First National Bank Building
SIOUX FALLS, S. DAK.
PHONE 555

BOOK REVIEWS

by
Mrs. F. Briley.



Mrs. F. Briley

The Gardener's Travel Book, compiled and edited by Sec. E. I. Farrington of the Massachusetts Horticultural Society. 125 illustrations. Published by Hale, Cushman and Flint, 116 Newbury St., Boston, Mass. Price \$2.50.

There are guide books and guide books, but the Gardener's Guide Book is the first one to be written for garden-minded travelers whose eyes are looking for famous gardens, landscaped parks, wild flower displays, fruit blossom festivals and flower exhibits. The book fills a long felt want, and from now on, will be as indispensable to the tourist as the road maps. In it are listed the most interesting points of horticultural interest in every section of every state in the union, and in Canada. Then there is the appendix, telling all about where the famous American gardens are and how you may obtain permission to visit them. The United States National Parks are listed, giving the name, the state location, the approaches, and the special characteristics. It's a marvelous book. What I would have given to have had it on a recent trip to Washington, D. C. I read it with regrets, because I passed near many lovely spots, unknowingly. Where it was possible the co-authors have given the dates of coming horticultural events which travelers may wish to attend, en route. Frequently, throughout the book the statement is made that information direct may be obtained by writing to Horticulture, published by the Horticultural Society, Boston, Mass.

For South Dakota, six towns are mentioned where annual flower shows are held. For North Dakota, the International Peace Garden and its approaches are made entrancing. If you wish to know the date, you may visit an unusual flower calendar in the Woodlawn Cemetery in Winona, Minn., where the dates, in flowering plants, are changed daily with the changing months. For the hour of the day there is a floral clock in Dearborn, Mich., with works carefully hidden under various colored bedding plants. If you are a stay-at-home, and love to do your traveling on a magic carpet, you will find it between the covers of the Gardener's Travel Book.

No one can speak with authority to others that has not first spoken with authority to himself.—W. J. Cameron.

LILIES

by
F. L. Skinner

So much has already been written about the cultivation of the Lily that it seems almost impossible to say anything new along that line. However, there are always new devotees who are taking up the cultivation of this beautiful family group and during recent years a great deal of plant breeding work has been done and is still being carried on both in Europe and on this side of the Atlantic. I hardly think it is possible to raise a hybrid Lily that is more beautiful than those already being grown but some hybrids are sure to have greater vigor and hardiness than their parents and therefore enable them to be grown more easily by the average gardener.

To give some idea of the vigor of some of these hybrid Lilies, last year some of our hybrids of the Prairie Lily had 26 flowers on one stem and grew over three feet high while a correspondent in Eastern Canada states that she grew one stem of *Lilium Maxwill* to a height of 7 feet five inches with 102 flowers on it. Now some of you will say "but that was down East and we in the West cannot expect to grow Lilies as well as they do." This

(Continued on page 35)

THE PIONEER SEED HOUSE

*Nursery-Greenhouses of
the Northwest*

Founded at Bismarck, in Dakota Territory,
in 1882.

Specialists in Garden Seed, Trees, Shrubs,
WILL'S Fruits and Flowers, adapted
Seeds in Hardiness, Drouth Resist-
Grow ance and Vigor to Dakota
conditions.

FREE CATALOG

Ready January 1st of Each Year

OSCAR H. WILL & CO.

BISMARCK, N. D.

BOOKS AND CATALOGS

by
W. E. H. Porter



W. E. H. Porter

As a token of Christmas generosity and good will, I was recently the recipient of Norman Taylor's Botanical Dictionary and happy hours are spent in its perusal. The style is well composed, easy and attractive and the illustrations superb. For instance, the color chart has a never-ending fascination; also the zonal maps. Of necessity the plant list is merely a brief summary and does not pretend to be anything else. We are still waiting for this age to give us the equivalent of Gray's Manual. Bailey's 1935 Hortus is the nearest approach and it is far from complete. One of Rex Pearce's catalogs might well form a supplement to the latter. It is apparent that when we come to the zones of hardiness, there remains so very much to be done and it is right there that the files of our N. & S. Dakota Horticulture can add so much to the sum of human knowledge. All of North Dakota and a large part of South Dakota are included in zone 1; for example, right along the Manitoba border, such things as black walnut, ginnala and Norway maples, bush honeysuckles, etc., are all iron clad hardy, though the dictionary lists them as hardy from zones 2 and 3 southward. For anyone planting a rock garden, pages 679-688 are a mine of information, but in list of rock plants why, oh why are erodiums omitted? Supracanum, chrysanthemum, macradenum, cheilanthes, gems of the first water, are all hardy here. With the landscape enshrouded in a white monotony, January finds us the recipient of highly colored catalogs from seed houses and nurseries, which induces a lot of intensive fireside gardening and it is necessary to guard against a runaway ambition. The term "hardy" is not only relative but also a will o' the wisp that can lead to many pitfalls. Recently I could hardly resist adding a Firethorn (*Pyracantha coccinea*) a broad-leaved white flowered orange berried evergreen shrub, to a decorative garden setting. However, looking it up in the dictionary, I read, "2 or 4 southward" Discretion overcame valor. No such caution in that respect is needed in connection with Oscar H. Will & Co.'s tempting offers and I succumbed gladly and readily to his Ada Black Phlox and new dwarf dark blue New Zealand Delphinium, and as regards Rex Pearce's Merchantville, N. J., 1939 offer 31 A catalog, you can throw caution to the winds and just gorge as far as your pocket-book and garden space will permit. For instance,

practically all centaureas (Star thistle) are hardy and permanent in North Dakota. I have been rather priding myself on my collection that could be counted on the fingers of one hand. Rex Pearce lists 34, most of which you would look in vain for in our current literature; one packet contains not less than 30 species, all for 10 cents. In fact, this catalog possesses a magnetic charm that completely captures you and is an education in the higher realm of Field Botany, interlarded here and there with bits of advice, always good, and philosophy sometimes caustic as "This is the day of pressure groups. The catalog-writer block is pushing for a new supply of new and better adjectives with bonus of adverbs." He gives very definite information, "winter hardy without protection," nature of soil required, slow or rapid germination, etc., apparently more desirous that his product should succeed than merely to sell and most of his seeds and plants are raised personally. Over 3,000 rare species alone are growing in his "Old Orchard Garden" plot and he has over 100 professional and amateur collectors that gather, from all parts of the world. It certainly makes one's own efforts appear very puny, but here again he gives us encouragement, "If we may not make over the world, we can at least build our own garden corner of it to fit, though that garden corner be no greater than a window ledge. If this be escapism then make the most of it, giving thanks for it." Yes, truly Rex Pearce is one of our great Americans.

FRUIT AND VEGETABLE NOTES

(Continued from page 30)

fornia \$10,000,000 worth of these commodities. No. 2 potatoes cannot be imported or exported from Canada and consist of the following: frosted, injured, dumb bells, knob removed, sunburn, cracks, cuts, scab, blight, dry rot, or other diseases, insect or other defect and smaller than 1 1/4 inch, so it is important to handle potatoes as carefully as eggs. Fruit growers in Michigan are advised to scatter fruit tree prunings about the orchard to help prevent damage from mice, rabbits and other rodents. In the December 15 issue of the Market Growers Journal is Prof. Davis' paper on "The Tomato and Its Improvement," also three chapters of "Irrigation in the Midwest." On page 546 is a picture of G. E. Roberts, now of Perry, Ia., the bee man that gave us a paper at our Beresford meeting. His wife, daughter and himself made the trip to Detroit and back at a cost of \$9.19. Fitch says "some Scotchman." The Gurney catalog for 1939 has three outstanding fruits on the front cover, in bright scarlet color; the Waneta plum from S. D., the Beacon apple from Minnesota and the Redskin tomato from N. D.



LILIES

(Continued from page 33)

is a mistaken idea for with the exception of the Auratum and White Trumpet Lilies we can grow as good Lilies as can be grown in New England and with much less trouble. In a visit east early last summer during which I took in the Lily Field Day of the New York Horticultural Society, the commonest "Lily" I saw was the tawny Daylily, which of course is a Hemerocallis and not a true Lily. This showy plant has run wild through New York, Connecticut and Massachusetts, and is quite a feature along the highways of that part of the east. On this trip I saw some magnificently grown White Trumpet Lilies in the garden of Dr. Abel of White Plains, N. Y. Dr. Abel is doing a great work of hybridizing with these Lilies and it is to be hoped that he may raise a form that will suit our conditions better than those we have at present.

Another plant breeder who is doing a great deal of work with Lilies is Dr. Slate of Geneva (Dr. Slate by the way is a son-in-law to the late E. H. "Chinese" Wilson, who introduced the Regal Lily). At his place I saw some extremely vigorous hybrids of *Lilium Batemannii*. Being a late flowering Lily these hybrids were not in bloom at the time I saw them but if they are as nice as *L. Batemannii* they will be a decided acquisition as it is said to be almost impossible to secure mosaic-free stocks of *L. Batemannii*.

At Foxden, Peekskill, N. Y., Mrs. H. M. Fox had a long path lined with Dogwood and beneath these were planted Lilies. At the time of my visit the Regal Lilies were in bloom and though not as strong and vigorous as those grown by Dr. Abel, still they made an extremely lovely picture. At the Boyce Thompson Institute a great deal of work is being done with Lilies. Judging from the results of their work Lily mosaic is carried from one plant to another by aphids and if these insects are kept completely under control this disease will also be kept from spreading.

As regards cultivation of Lilies we find that good drainage is one of the first essentials to success and a sandy loam with leaf mould or other well rotted humus is an ideal soil. Here we give no winter protection but then we can depend on a snow covering throughout the winter and in districts where this snow covering cannot be depended on it would be advisable to give the Lily bed a six inch mulch to prevent alternate freezing and thawing during the winter. It is this alternate freezing and thawing that kills Lily bulbs and not the actual frost itself.

As to varieties that can be grown on the prairie, we grow over 60 species and varieties under ordinary conditions. Some of these do, of course, require a little more care in planting and in the selection of a location for growing them and are

therefore suited only to the garden of the specialist, but at least 40 of them could be grown quite readily by the ordinary keener gardener. For the beginner, I would recommend the Siberian Coral Lily (*Lilium tenuifolium*), the Star Lily (*L. concolor*), the Candlestick Lily (*L. dauricum*) and its hybrid with the Prairie Lily, and the various forms of the Tiger Lily (*L. tigrinum*). These are all hardy, easily grown and increase rapidly either by seeds or offsets.

MANITOBA NEWS LETTER

(Continued from page 31)

riety, they do not weaken its growth," and again, "The trees on the roots of seedlings of resistant wild apple trees and on hardy trunks do not suffer from frost, and because of the companionship of tender variety with a hardy one, they neither need bridge-grafting nor invigorating."

Modern greenhouse gardeners now keep plant lice and red spiders under control by feeding their crops poisonous chemicals which are more deadly to insects than to plants. Dr. V. H. Morris, of the Ohio experiment station, employs sodium selenate for this purpose, adding one part of selenium per million to his culture solution weekly. —Dr. Firman E. Bear in Country Home.

GLADIOLUS

NORTHERN GROWN BULBS

Special Offer if Ordered Before March 25

10 each of the following 7 good Glads, each labeled and prepaid: Commander Koehl, Maid of Orleans, Lights of Gold, Red Phipps, Margaret Fulton, Wasaga, and Debonair.

70 LARGE SIZE BULBS, \$2.00
Same Collection, but medium size bulbs, \$1.25

We grow the best of the proven satisfactory Glads for this climate: Beacon, Picardy, Smiling Maestro, Mildred Louise, Waratah, Star of Bethlehem, Paradise, and many others.

We'll help you stretch your
"Glad Dollars"

Free price list on request.

GEO. E. MILLEN

SHEYENNE, N. D.



South Dakota State Horticultural Society Premium List for 1939

Annual members, in addition to receiving our magazine for a year, are entitled to receive one premium in the plant line, or two, in the seed line. Please make your selection before May 1st and send your selection and your dollar to W. A. Simmons, Court House, Sioux Falls, S. D.

Our good friends, the nurserymen, are donating these premiums and when in the market for anything in their line, it will pay you to deal with these firms.

The Dybvig Nursery, Colton, S. D., offers the following:

- No. 1—6 Coral (*tenuifolium*) lily bulbs.
- No. 2—2 Double Tiger (*tigrinum*) lily bulbs.
- No. 3—2 Elegans lily bulbs.
- No. 4—3 Hybrid Delphiniums.
- No. 5—2 Spice bush seedlings
- The Gates Nursery, Rapid City, offers:
- No. 6—6 Sandcherry seedlings
- No. 7—6 Chokecherry seedlings
- No. 8—1 Red Flesh Crab.
- No. 9—1 Winnipeg Plum
- No. 10—6 Black Hills Pine seedlings, 3 years.

The Geo. W. Gurney Nursery, Yankton, S. D., offers the following:

- No. 11—5 Sedums, hardy.
- No. 12—12 Gladiolus, named or assorted.
- No. 13—1 Peony, red, white or pink.
- The House of Gurney, Yankton, S. D., offers:
- No. 14—1 Mordena Cherry Tree.
- No. 15—1 Gurney's Winter Wealthy Apple

Tree.

- No. 16—1 Hansen's New Bush Cherry.
- No. 17—2 Blue flowering perennial Flax.
- No. 18—2 Gaillardias.
- No. 19—2 Coreopsis.
- No. 20—2 Achillea.
- No. 21—2 Columbines.

In addition they will send to each one securing a new annual member for the Society 1 tree of Hansen's new hardy Apricots.

Mr. J. B. Taylor of the Northern Seed & Nursery Co., Ipswich and Aberdeen, offers:

- No. 22—Seed of Giant Zinnia.
- No. 23—Seed of Crown of Gold (scentless) Marigold.
- No. 24—Seed of Bison Tomato.
- No. 25—Seed of Golden Bison Tomato.
- No. 26—Seed of Jumbo Tomato.
- No. 27—Seed of Golden Gleam Nasturtium.
- Mr. F. X. Wallner, Sioux Falls, offers:
- No. 28—6 assorted Iris roots.
- No. 29—2 Tawney Day Lily roots.
- No. 30—Seed of Buttercup Squash.
- No. 31—Seed of Banquet Squash.
- No. 32—Seed of Pinkheart Tomato.
- No. 33—Seed of Fargo Yellow Pear Tomato.

No. 34—2 lbs. of Warba potatoes, for seed.

HAS THE EARTH CHANGED ITS POLAR AXIS?

(Continued from page 28)

those forces? Whence come, how transmitted and applied to the purposes they serve? Gravity? What is gravity? It is a plausible and generally accepted theory or guess by one of the world's most brilliant minds. The so-called law of gravity is an imponderable. It can be neither weighed, measured nor proven. It stands upon the statute books of science only because some broader and more brilliant theorist has not repealed it with a more plausible and acceptable guess. The positive Archaean rock surface on which all scientific minds can meet and fully agree is so small that it is hardly visible to the naked eye. Many tremendously imposing, impressive and gradually built up scientific structures stand almost entirely upon theoretical foundations.

How does the theory, law or force of gravitation apply in giving to and governing planetary bodies in their rotary movements? How does it turn the earth completely around, right on the dot, daily? How does it force the earth to describe an ellipse—causing the seasons—instead of following a true circle, in its annual trip around the sun?

The theory of gravitation, if accepted as generally interpreted, considering the innumerable, variably moving and gyrating bodies of the whole universal system, only lightly touches the extreme outer edge of the extreme outer hem of the whole great garment.

PRESIDENT'S CORNER

(Continued from page 29)

will get the figures on the not so good species, but just to run W. C. Allen around for picking out an evergreen as the State tree, in the Clark meeting, against my wishes, it is necessary to announce that the survival on Ponderosa Pine was only 24%.

Maybe 1938 was an exceptional year, as the Californians say when it is cold.

Our guest this month is Albert Castle, and this is dedicated to Dr. Brenckle of Mellette and O. A. Stevens, of Fargo:

"About her head she wraps a cloth of grey,
Then, like a bustling housewife, brisk and keen,
Singing a noisy song with spirits gay,
She sweeps the hills and fields, and valleys clean.
She takes the tattered covers from the trees
So spring may hang her flowered draperies;
Wipes off the frosted coat from every stream,
That each may like a brilliant mirror gleam;
And, when her eyes no other task discern,
Calls back the truant birds to welcome spring's
return."